

Printing specification

	Drawn	Checked	Approved
Signature	Danbi.park	Yena.park	Jongok.kim
MMM/DD/YYYY	Jan/11/2013	Jan/11/2013	Jan/11/2013

1. Model Description

Model name	: 42PN450D-ZA	Brand name	: LG	Part number	: MFL67710003
2nd, 3rd Suffix	: EK	Product name	: 42PN450D	(Revision number)	: (1301-REV00)

2. Printing Specification

1. Trim size (Format)	: 182 mm x 257 mm (B5)
2. Printing colors	
• Cover	: 1 Color (Black)
• Inside	: 1 Color (Black)
3. Stock (Paper)	
• Cover	: Uncoted, wood-free paper 60 g/ m ²
• Inside	: Uncoted, wood-free paper 60 g/ m ²
4. Printing method	: Off set
5. Bindery	: Saddle stitching
6. Language	: Eng-UK (1)
7. Number of pages	: 32
NOTE	"This part contains Eco-hazardous substances (Pb, Cd, Hg, Cr6+, PBB, PBDE, etc.) within LG standard level, Details should be followed Eco-SCM management standard[LG(56)-A-2524]. Especially, Part should be followed and controlled the following specification. (1) Eco-hazardous substances test report should be submitted when Part certification test and First Mass Production. (2) Especially, Don't use or contain lead(Pb) and cadmium(Cd) in ink.

3. Origin Notification

LGEAK : Printed in Kazakhstan	LGEKR : Printed in Korea	LGERS : Printed in Mexico
LGEAZ : Printed in Brazil	LGEMA : Printed in Poland	LGESY : Printed in China
LGEEG : Printed in Egypt	LGEMX : Printed in Mexico	LGETH : Printed in Thailand
LGEIL : Printed in India	LGEND : Printed in China	LGEVN : Printed in Vietnam
LGEIN : Printed in Indonesia	LGERA : Printed in Russia	LGEWR : Printed in Poland

4. Changes

				
				
				
				
				
				
				
				
				
				
Rev. Number	MMM/DD/YYYY	Signature	ECO Number	Change Contents

Pagination sheet

Part number : MFL67710003
(Revision number) (1301-REV00)
Total pages : 32 pages

Front (Eng) P/No.	2	...	...	...	31	Back
-------------------------	---	-----	-----	-----	----	------



OWNER'S MANUAL PLASMA TV

Please read this manual carefully before operating your set and retain it for future reference.

PN45**
PN65**

TABLE OF CONTENTS

3 LICENSES

3 OPEN SOURCE SOFTWARE NOTICE

3 EXTERNAL CONTROL DEVICE SETUP

4 SAFETY INSTRUCTIONS

10 INSTALLATION PROCEDURE

10 ASSEMBLING AND PREPARING

- 10 Unpacking
- 13 Separate purchase
- 14 Parts and buttons
- 15 Lifting and moving the TV
- 16 Setting up the TV
 - Attaching the stand
- 18 Mounting on a table
- 19 Mounting on a wall
- 20 Tidying cables

21 MAKING CONNECTIONS

- 21 Antenna Connection
- 21 Satellite dish Connection
- 22 HDMI Connection
- 22 DVI to HDMI connection
- 23 Component Connection
- 23 Composite Connection
- 24 Audio Connection
 - Digital optical audio connection
- 24 USB Connection
- 24 CI module Connection
- 25 Euro Scart Connection

26 REMOTE CONTROL

27 NETWORK SETTING

- 27 Wired Network Connection

28 USING THE USER GUIDE

29 MAINTENANCE

- 29 Cleaning your TV
 - Screen, frame, cabinet and stand
 - Power cord

29 TROUBLESHOOTING

30 SPECIFICATIONS



WARNING

- If you ignore the warning message, you may be seriously injured or there is a possibility of accident or death.



CAUTION

- If you ignore the caution message, you may be slightly injured or the product may be damaged.



NOTE

- The note helps you understand and use the product safely. Please read the note carefully before using the product.

LICENSES

Supported licenses may differ by model. For more information about licenses, visit www.lg.com.



Manufactured under license from Dolby Laboratories.
“Dolby” and the double-D symbol are trademarks of Dolby Laboratories.



The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.



ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, LLC, a subsidiary of Rovi Corporation. This is an official DivX Certified® device that plays DivX video. Visit divx.com for more information and software tools to convert your files into DivX video.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to vod.divx.com for more information on how to complete your registration.

“DivX Certified® to play DivX® video up to HD 1080p, including premium content.”

“DivX®, DivX Certified® and associated logos are trademarks of Rovi Corporation or its subsidiaries and are used under license.”

“Covered by one or more of the following U.S. patents :
7,295,673; 7,460,668; 7,515,710; 7,519,274”

OPEN SOURCE SOFTWARE NOTICE

To obtain the source code under GPL, LGPL, MPL and other open source licenses, that is contained in this product, please visit <http://opensource.lge.com>.

In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are available for download.

LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping and handling) upon email request to opensource@lge.com. This offer is valid for three (3) years from the date on which you purchased the product.

EXTERNAL CONTROL DEVICE SETUP

To obtain the external control device setup information, please visit www.lg.com

SAFETY INSTRUCTIONS



Please read these safety precautions carefully before using the product.

! WARNING

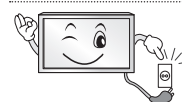


- Do not place the TV and remote control in the following environments:
 - A location exposed to direct sunlight
 - An area with high humidity such as a bathroom
 - Near any heat source such as stoves and other devices that produce heat
 - Near kitchen counters or humidifiers where they can easily be exposed to steam or oil
 - An area exposed to rain or wind
 - Near containers of water such as vases

Otherwise, this may result in fire, electric shock, malfunction or product deformation.



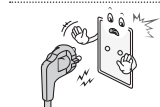
- Do not place the product where it might be exposed to dust. This may cause a fire hazard.



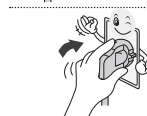
- Mains Plug is the TV connecting/disconnecting device to AC mains electric supply. This plug must remain readily attached and operable when TV is in use.



- Do not touch the power plug with wet hands. Additionally, if the cord pin is wet or covered with dust, dry the power plug completely or wipe dust off. You may be electrocuted due to excess moisture.



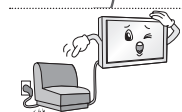
- Make sure to connect Mains cable to compliant AC mains socket with Grounded earth pin. (Except for devices which are not grounded on earth.) Otherwise possibility you may be electrocuted or injured.



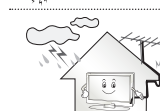
- Insert power cable plug completely into wall socket otherwise if not secured completely into socket, fire ignition may break out.



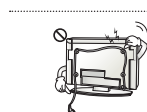
- Ensure the power cord does not come into contact with hot objects such as a heater. This may cause a fire or an electric shock hazard.



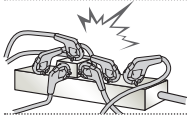
- Do not place a heavy object, or the product itself, on power cables. Otherwise, this may result in fire or electric shock.



- Bend antenna cable between inside and outside building to prevent rain from flowing in. This may cause water damaged inside the Product and could give an electric shock.



- When mounting TV onto wall make sure to neatly install and isolate cabling from rear of TV as to not create possibility of electric shock /fire hazard.



- Do not plug too many electrical devices into a single multiple electrical outlet. Otherwise, this may result in fire due to over-heating.



- Do not drop the product or let it fall over when connecting external devices. Otherwise, this may result in injury or damage to the product.



- Keep the packing anti-moisture material or vinyl packing out of the reach of children.
Anti-moisture material is harmful if swallowed. If swallowed by mistake, force the patient to vomit and visit the nearest hospital. Additionally, vinyl packing can cause suffocation. Keep it out of the reach of children.



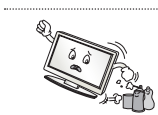
- Do not let your children climb or cling onto the TV.
Otherwise, the TV may fall over, which may cause serious injury.



- Dispose of used batteries carefully to protect a child from eating them.
Please seek Doctor- Medical Attention immediately if child consumes batteries.



- Do not insert any metal objects/conductors (like a metal chopstick/cutlery/ screwdriver) between power cable plug and input Wall Socket while it is connected to the input terminal on the wall. Additionally, do not touch the power cable right after plugging into the wall input terminal.
You may be electrocuted.
(Depending on model)



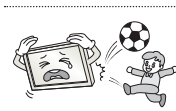
- Do not put or store inflammable substances near the product.
There is a danger of combustion/explosion or fire due to careless handling of the inflammable substances.



- Do not drop metallic objects such as coins, hair pins, chopsticks or wire into the product, or inflammable objects such as paper and matches. Children must pay particular attention.
Electrical shock, fire or injury can occur. If a foreign object is dropped into the product, unplug the power cord and contact the service centre.



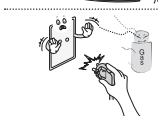
- Do not spray water on the product or scrub with an inflammable substance (thinner or benzene). Fire or electric shock accident can occur.



- Do not allow any impact, shock or any objects to fall into the unit, and do not drop anything onto the screen. You may be injured or the product can be damaged.



- Never touch this product or antenna during a thunder or lightning storm.
You may be electrocuted.



- Never touch the wall outlet when there is leakage of gas, open the windows and ventilate.
It may cause a fire or a burn by a spark.



- Do not disassemble, repair or modify the product at your own discretion. Fire or electric shock accident can occur. Contact the service centre for check, calibration or repair.



- If any of the following occur, unplug the product immediately and contact your local service centre.
 - The product has been impacted by shock
 - The product has been damaged
 - Foreign objects have entered the product
 - The product produced smoke or a strange smellThis may result in fire or electric shock.



- Unplug the TV from AC mains wall socket if you do not intend to use the TV for a long period of time. Accumulated dust can cause fire hazard and insulation deterioration can cause electric leakage/shock/fire.



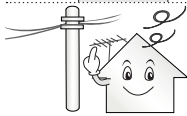
- Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.



CAUTION



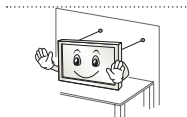
- Install the product where no radio wave occurs.



- There should be enough distance between an outside antenna and power lines to keep the former from touching the latter even when the antenna falls. This may cause an electric shock.



- Do not install the product on places such as unstable shelves or inclined surfaces. Also avoid places where there is vibration or where the product cannot be fully supported. Otherwise, the product may fall or flip over, which may cause injury or damage to the product.



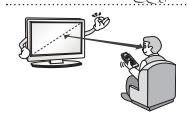
- If you install the TV on a stand, you need to take actions to prevent the product from overturning. Otherwise, the product may fall over, which may cause injury.

- If you intend to mount the product to a wall, attach VESA standard mounting interface (optional parts) to the back of the product. When you install the set to use the wall mounting bracket (optional parts), fix it carefully so as not to drop.

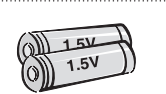
- Only use the attachments / accessories specified by the manufacturer.



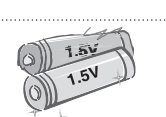
- When installing the antenna, consult with a qualified service technician. If not installed by a qualified technician, this may create a fire hazard or an electric shock hazard.



- We recommend that you maintain a distance of at least 2 to 7 times the diagonal screen size when watching TV. If you watch TV for a long period of time, this may cause blurred vision.



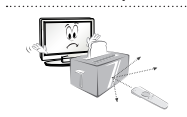
- Only use the specified type of battery. This could cause damage to the remote control.



- Do not mix new batteries with old batteries. This may cause the batteries to overheat and leak.

- Batteries should not be exposed to excessive heat. eg keep away from direct Sunlight, open fireplace and electric heaters.

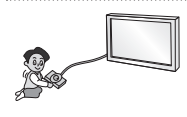
- Do not place non-rechargeable batteries in charging device.



- Make sure there are no objects between the remote control and its sensor.



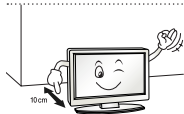
- Signal from Remote Control can be interrupted due to external/internal lighting eg Sunlight, fluorescent lighting. If this occurs turn off lighting or darken viewing area.



- When connecting external devices such as video game consoles, make sure the connecting cables are long enough. Otherwise, the product may fall over, which may cause injury or damage the product.

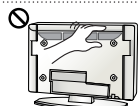


- Do not turn the product On/Off by plugging-in or unplugging the power plug to the wall outlet. (Do not use the power plug for switch.) It may cause mechanical failure or could give an electric shock.



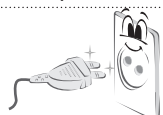
- Please follow the installation instructions below to prevent the product from overheating.
 - The distance between the product and the wall should be more than 10 cm.
 - Do not install the product in a place with no ventilation (e.g., on a bookshelf or in a cupboard).
 - Do not install the product on a carpet or cushion.
 - Make sure the air vent is not blocked by a tablecloth or curtain.

Otherwise, this may result in fire.

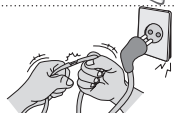


- Take care not to touch the ventilation openings when watching the TV for long periods as the ventilation openings may become hot. This does not affect the operation or performance of the product.

- Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer.



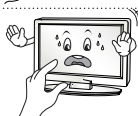
- Prevent dust collecting on the power plug pins or outlet. This may cause a fire hazard.



- Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.



- Do not press strongly upon the panel with a hand or sharp object such as nail, pencil or pen, or make a scratch on it, as it may cause damage to screen.



- Avoid touching the screen or holding your finger(s) against it for long periods of time. Doing so may produce some temporary or permanent distortion/damage to screen.



- When cleaning the product and its components, unplug the power first and wipe it with a soft cloth. Applying excessive force may cause scratches or discolouration. Do not spray with water or wipe with a wet cloth. Never use glass cleaner, car or industrial shiner, abrasives or wax, benzene, alcohol etc., which can damage the product and its panel. Otherwise, this may result in fire, electric shock or product damage (deformation, corrosion or breakage).

- As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if you turn off this unit by SWITCH.



- When unplugging the cable, grab the plug and unplug it, by pulling at the plug. Don't pull at the cord to unplug the power cord from the power board, as this could be hazardous.



- When moving the product, make sure you turn the power off first. Then, unplug the power cables, antenna cables and all connecting cables. The TV set or power cord may be damaged, which may create a fire hazard or cause electric shock.



- When moving or unpacking the product, work in pairs because the product is heavy. Otherwise, this may result in injury.



- Contact the service centre once a year to clean the internal parts of the product. Accumulated dust can cause mechanical failure.



- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



- If the product feels cold to the touch, there may be a small “flicker” when it is turned on. This is normal, there is nothing wrong with product.



- The panel is a high technology display product with resolution of two million to six million pixels. You may see tiny black dots and/or brightly coloured dots (red, blue or green) at a size of 1 ppm on the panel. This does not indicate a malfunction and does not affect the performance and reliability of the product. This phenomenon also occurs in third-party products and is not subject to exchange or refund.



- You may find different brightness and colour of the panel depending on your viewing position(left/right/top/down). This phenomenon occurs due to the characteristic of the panel. It is not related with the product performance, and it is not malfunction.



- Displaying a still image (e.g., broadcasting channel logo, on-screen menu, scene from a video game) for a prolonged time may cause damage to the screen, resulting in retention of the image, which is known as image sticking. The warranty does not cover the product for image sticking. Avoid displaying a fixed image on your television's screen for a prolonged period (2 or more hours for LCD, 1 or more hours for Plasma). Also, if you watch the TV at a ratio of 4:3 for a long time, image sticking may occur on the borders of the panel. This phenomenon also occurs in third-party products and is not subject to exchange or refund.

• Generated Sound

“Cracking” noise: A cracking noise that occurs when watching or turning off the TV is generated by plastic thermal contraction due to temperature and humidity. This noise is common for products where thermal deformation is required. Electrical circuit humming/panel buzzing: A low level noise is generated from a high-speed switching circuit, which supplies a large amount of current to operate a product. It varies depending on the product.

This generated sound does not affect the performance and reliability of the product.

 NOTE

- Image shown may differ from your TV.
- Your TV's OSD (On Screen Display) may differ slightly from that shown in this manual.
- The available menus and options may differ from the input source or product model that you are using.
- New features may be added to this TV in the future.
- The TV can be placed in standby mode in order to reduce the power consumption. And the TV should be turned off if it will not be watched for some time, as this will reduce energy consumption.
- The energy consumed during use can be significantly reduced if the level of brightness of the picture is reduced, and this will reduce the overall running cost.

INSTALLATION PROCEDURE

- 1 Open the package and make sure all the accessories are included.
- 2 Attach the stand to the TV set.
- 3 Connect an external device to the TV set.

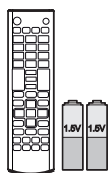
ASSEMBLING AND PREPARING

Unpacking

Check your product box for the following items. If there are any missing accessories, contact the local dealer where you purchased your product. The illustrations in this manual may differ from the actual product and item.

 CAUTION

- Do not use any unapproved items to ensure the safety and product life span.
- Any damage or injuries caused by using unapproved items are not covered by the manufacturer's warranty.
- Some models have a thin film attached on to the screen and this must not be removed.



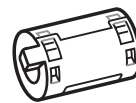
**Remote Control,
Batteries (AAA)**
(See p. 26)



Owner's manual



Power Cord



Ferrite core
(Depending on model)
(See p. 12)



Power Cord Holder
(See p. 20)



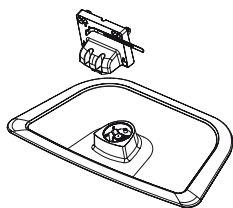
Desk-mount Screw
(Only 42PN45**) (See p. 18)



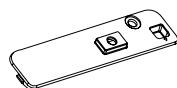
Screw for assembly
(Only 42PN45**) (See p. 16)



Screw for assembly
(Only 50PN45**, 50/60PN65**) (See p. 16)



**Stand Body / Stand
Base**
(See p. 16)



Protection Cover
(Only 50PN45**, 50PN65**) (See p. 17)

NOTE

- The items supplied with your product may vary depending on the model.
- Product specifications or contents of this manual may be changed without prior notice due to upgrade of product functions.

How to use the ferrite core

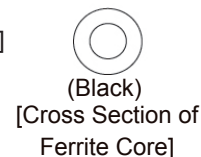
- 1 Use the ferrite core to reduce the electromagnetic interference in the power cable.
Wind the power cable on the ferrite core once. Place the ferrite core close to the TV and a wall plug.

[to a wall plug]



[to the TV]

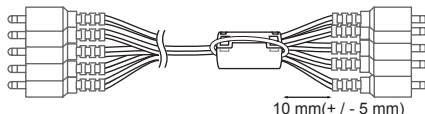
[Figure 1]



- 2 Use the ferrite core to reduce the electromagnetic interference in the cable.
Place the ferrite core close to the TV.

Wind the component Y, Pb, Pr, L, R cable on the ferrite core once.

[to an External device]

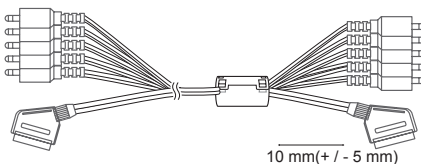


[to the TV]

[Figure 2-1]

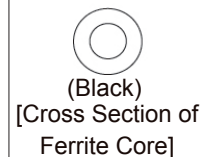
Gather and bind the component Y, Pb, Pr, L, R and scart cable with the ferrite core.

[to an External device]



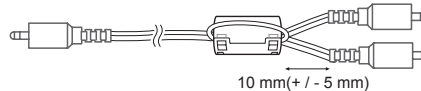
[to the TV]

[Figure 2-2]



Wind the PC audio cable on the ferrite core once.

[to an External device]



[to the TV]

[Figure 2-3]

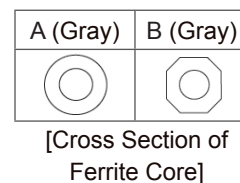
- 3 Use the ferrite core to reduce the electromagnetic interference in the LAN cable. Wind the LAN cable once on the ferrite core B and thrice on the ferrite core A. Place the ferrite core close to the TV and an External device.

[to the TV]



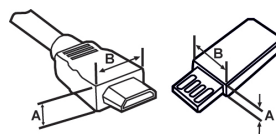
[to an External device]

[Figure 3]



- If there are three ferrite cores, follow as shown in Figures 1 and 2.
- If there is LAN port, additionally follow as shown in Figure 3.

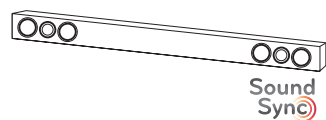
- For an optimal connection, HDMI cables and USB devices should have bezels less than 10 mm thick and 18 mm width. Use an extension cable that supports USB 2.0 if the USB cable or USB memory stick does not fit into your TV's USB port.



*A ≦ 10 mm
*B ≦ 18 mm

Separate purchase

Separate purchase items can be changed or modified for quality improvement without any notification.
Contact your dealer to buy these items.
These devices only work with certain models.

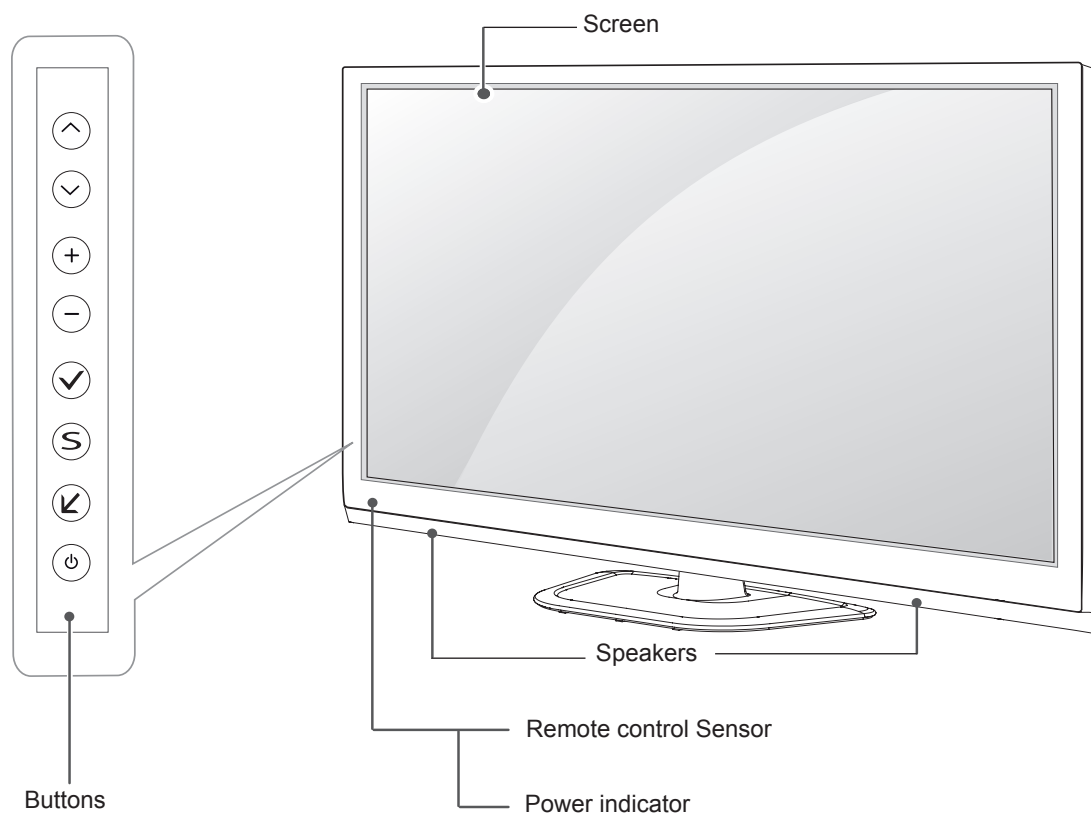


LG Audio Device

Compatibility	PN45**	PN65**
LG Audio Device	•	•

The model name or design may be changed depending on the upgrade of product functions, manufacturer's circumstances or policies.

Parts and buttons



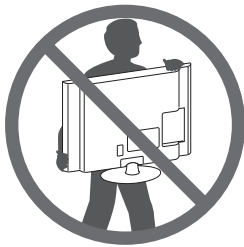
Button	Description
⏻	Turns the power on or off.
✓	Selects the highlighted menu option or confirms an input
S	Accesses the main menus, or saves your input and exits the menus.
⬅	Changes the input source
- +	Adjusts the volume level.
⬆ ⬆	Scrolls through the saved programmes.

Lifting and moving the TV

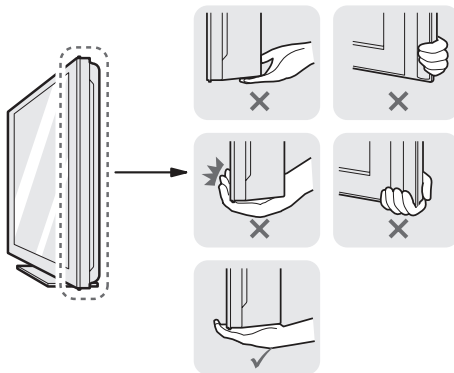
Please note the following advice to prevent the TV from being scratched or damaged and for safe transportation regardless of its type and size.

CAUTION

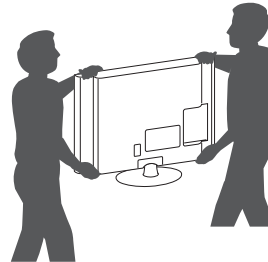
- Avoid touching the screen at all times, as this may result in damage to the screen.
- It is recommended to move the TV in the box or packing material that the TV originally came in.
- Before moving or lifting the TV, disconnect the power cord and all cables.
- When holding the TV, the screen should face away from you to avoid damage.



- Hold the top and bottom of the TV frame firmly. Make sure not to hold the transparent part, speaker, or speaker grill area.



- When transporting a large TV, there should be at least 2 people.
- When transporting the TV by hand, hold the TV as shown in the following illustration.

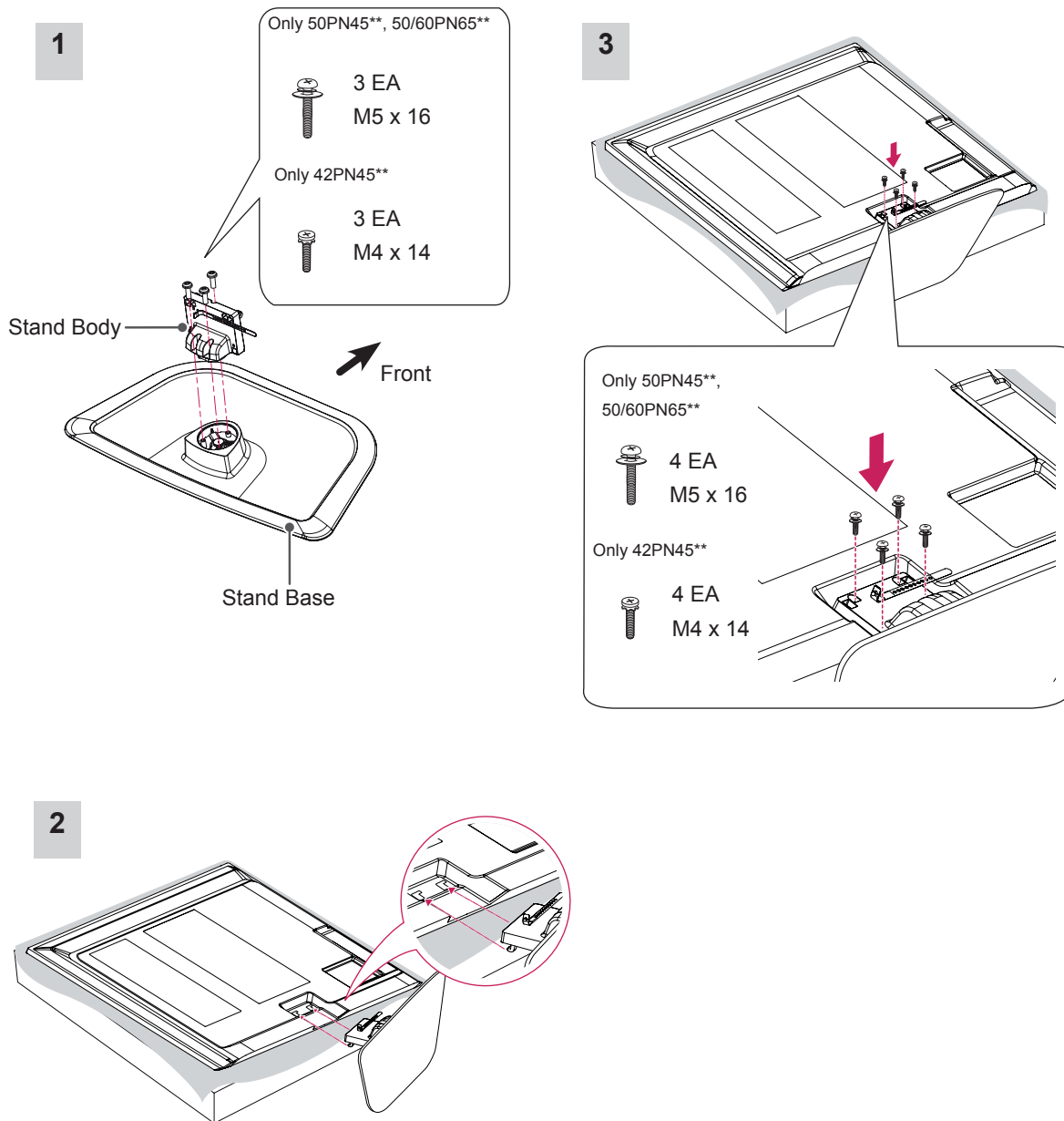


- When transporting the TV, do not expose the TV to jolts or excessive vibration.
- When transporting the TV, keep the TV upright, never turn the TV on its side or tilt towards the left or right.
- Do not apply excessive pressure to cause flexing /bending of frame chassis as it may damage screen.

Setting up the TV

Image shown may differ from your TV.

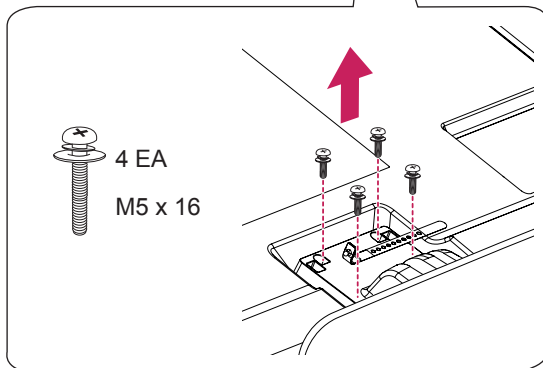
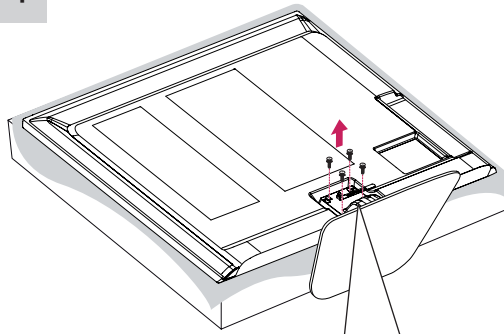
Attaching the stand



To detach the stand

(Only 50PN45**, 50PN65**)

1



CAUTION

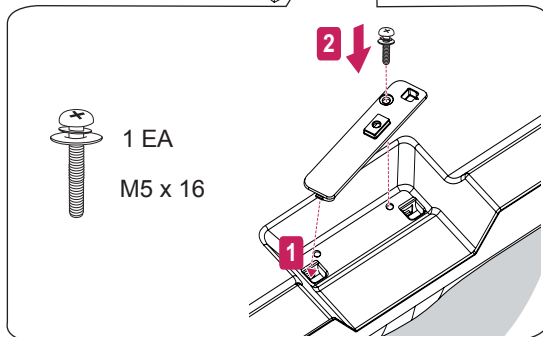
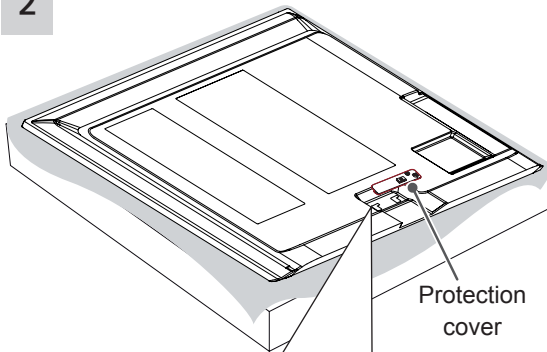
- When attaching the stand to the TV set, place the screen facing down on a cushioned table or flat surface to protect the screen from scratches.
- Make sure that the screws are inserted correctly and fastened securely. If they are not fastened securely enough, the TV may tilt forward after being installed. Do not use too much force and over tighten the screws; otherwise screw may be damaged and not tighten correctly.



NOTE

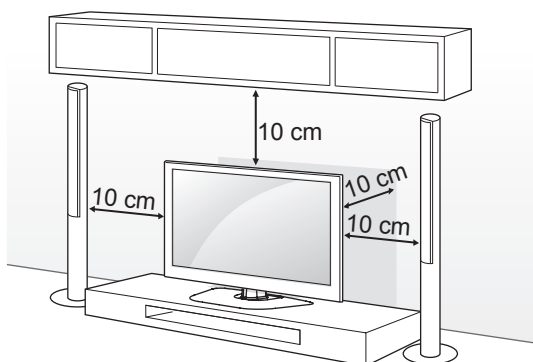
- When installing the wall mounting bracket, use the Protection Cover.
- This will protect the opening from accumulating dust and dirt.
- Remove the stand before installing the TV on a wall mount by performing the stand attachment in reverse.

2



Mounting on a table

- 1 Lift and tilt the TV into its upright position on a table.
 - Leave a 10 cm (minimum) space from the wall for proper ventilation.



- 2 Connect the power cord to a wall outlet.



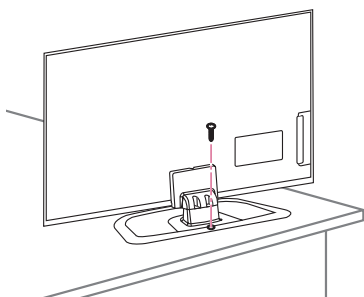
CAUTION

- Do not place the TV near or on sources of heat, as this may result in fire or other damage.

Securing the TV to a table

Fix the TV to a table to prevent from tilting forward, damage, and potential injury.

Mount the TV on a table, and then insert and tighten the supplied screw on the rear of the stand. (Only 42PN45**)



WARNING

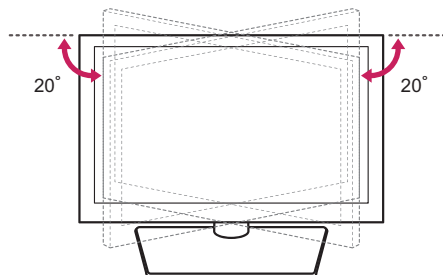
- To prevent TV from falling over, the TV should be securely attached to the floor/wall per installation instructions. Tipping, shaking, or rocking the TV may cause injury.

Adjusting the angle of the TV to suit view

(This feature is not available for all models.)

Adjusting the angle of the TV to suit view

Swivel 20 degrees to the left or right and adjust the angle of the TV to suit your view.

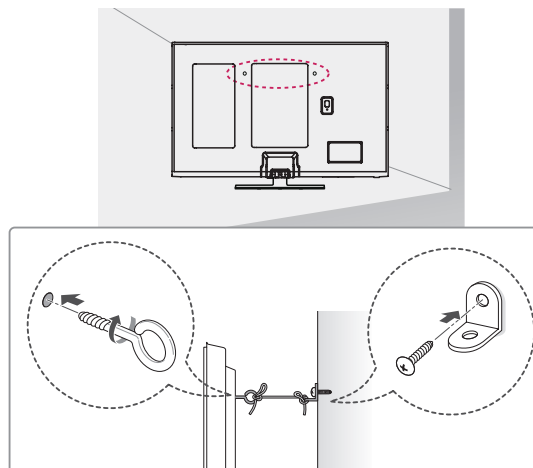


CAUTION

- When adjusting the angle of the product, watch out for your fingers.
- Personal injury may occur if hands or fingers are pinched. If the product is tilted too much, it may fall, causing damage or injury.

Securing the TV to a wall

(This feature is not available for all models.)



- 1 Insert and tighten the eye-bolts, or TV brackets and bolts on the back of the TV.
 - If there are bolts inserted at the eye-bolts position, remove the bolts first.
- 2 Mount the wall brackets with the bolts to the wall.

Match the location of the wall bracket and the eye-bolts on the rear of the TV.
- 3 Connect the eye-bolts and wall brackets tightly with a sturdy rope.

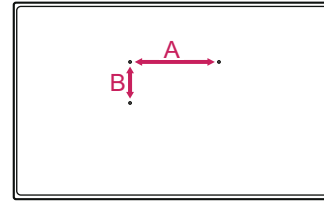
Make sure to keep the rope horizontal with the flat surface.

CAUTION

- Make sure that children do not climb on or hang on the TV.

NOTE

- Use a platform or cabinet that is strong and large enough to support the TV securely.
- Brackets, bolts and ropes are not provided. You can obtain additional accessories from your local dealer.

**CAUTION**

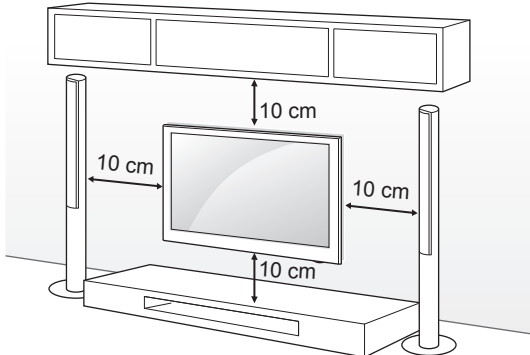
- Disconnect the power first, and then move or install the TV. Otherwise electric shock may occur.
- If you install the TV on a ceiling or slanted wall, it may fall and result in severe injury. Use an authorised LG wall mount and contact the local dealer or qualified personnel.
- Do not over tighten the screws as this may cause damage to the TV and void your warranty.
- Use the screws and wall mounts that meet the VESA standard. Any damages or injuries by misuse or using an improper accessory are not covered by the manufacturer's warranty.

NOTE

- Use the screws that are listed on the VESA standard screw specifications.
- The wall mount kit includes an installation manual and necessary parts.
- The wall mount bracket is not provided. You can obtain additional accessories from your local dealer.
- The length of screws may differ depending on the wall mount. Make sure to use the proper length.
- For more information, refer to the manual supplied with the wall mount.

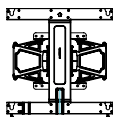
Mounting on a wall

Attach an optional wall mount bracket at the rear of the TV carefully and install the wall mount bracket on a solid wall perpendicular to the floor. When you attach the TV to other building materials, please contact qualified personnel. LG recommends that wall mounting be performed by a qualified professional installer.



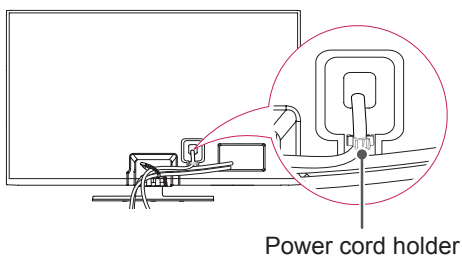
Make sure to use screws and wall mount bracket that meet the VESA standard. Standard dimensions for the wall mount kits are described in the following table.

Separate purchase(Wall Mounting Bracket)

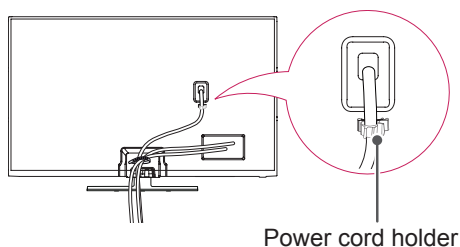
Model	42/50PN45** 50/60PN65**
VESA (A x B)	400 x 400
Standard screw	M6
Number of screws	4
Wall mount bracket	PSW420BX 

Tidying cables

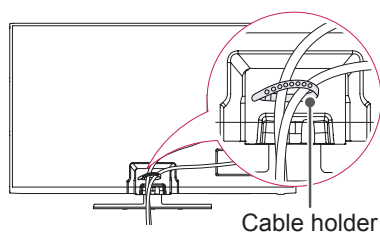
- 1 Install the Power Cord Holder and Power Cord.
It will help prevent the power cable from being removed by accident.
(Only 42PN45**)



(Only 50PN45**, 50/60PN65**)



- 2 Gather and bind the cables with the Cable Holder.



CAUTION

- Do not move the TV by holding the cable holder and power cable holder, as the cable holders may break, and injuries and damage to the TV may occur.

MAKING CONNECTIONS

This section on **MAKING CONNECTIONS** mainly uses diagrams for the PN45** models.

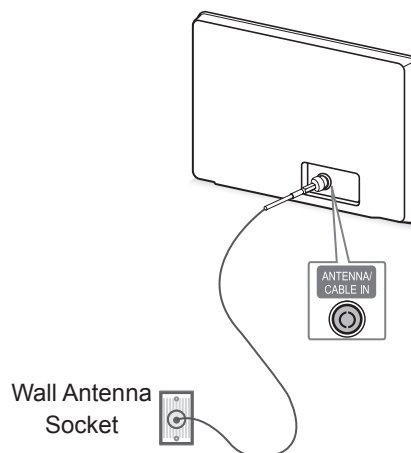
Connect various external devices to the TV and switch input modes to select an external device. For more information of external device's connection, refer to the manual provided with each device.

Available external devices are: HD receivers, DVD players, VCRs, audio systems, USB storage devices, PC, gaming devices, and other external devices.

NOTE

- The external device connection may differ from the model.
- Connect external devices to the TV regardless of the order of the TV port.
- If you record a TV program on a DVD recorder or VCR, make sure to connect the TV signal input cable to the TV through a DVD recorder or VCR. For more information of recording, refer to the manual provided with the connected device.
- Refer to the external equipment's manual for operating instructions.
- If you connect a gaming device to the TV, use the cable supplied with the gaming device.
- In PC mode, there may be noise associated with the resolution, vertical pattern, contrast or brightness. If noise is present, change the PC output to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the PICTURE menu until the picture is clear.
- In PC mode, some resolution settings may not work properly depending on the graphics card.

Antenna Connection



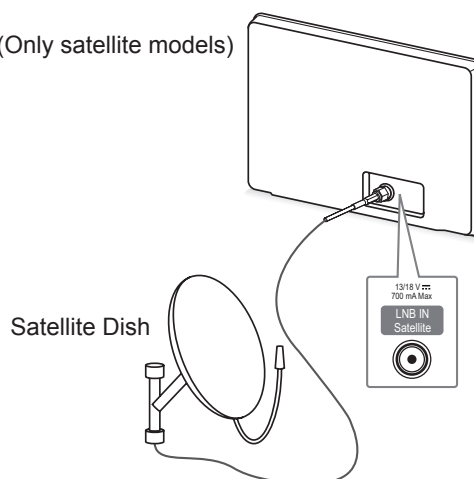
Connect the TV to a wall antenna socket with an RF cable (75 Ω).

NOTE

- Use a signal splitter to use more than 2 TVs.
- If the image quality is poor, install a signal amplifier properly to improve the image quality.
- If the image quality is poor with an antenna connected, try to realign the antenna in the correct direction.
- An antenna cable and converter are not supplied.
- Supported DTV Audio: MPEG, Dolby Digital, Dolby Digital Plus, HE-AAC

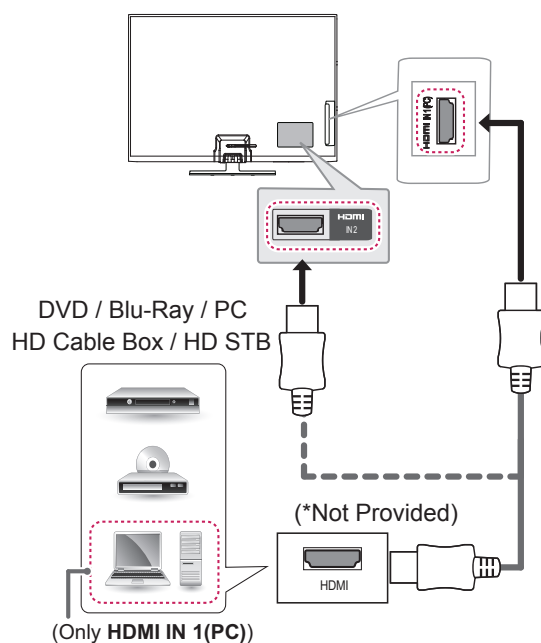
Satellite dish Connection

(Only satellite models)



Connect the TV to a satellite dish to a satellite socket with a satellite RF cable (75 Ω).

HDMI Connection



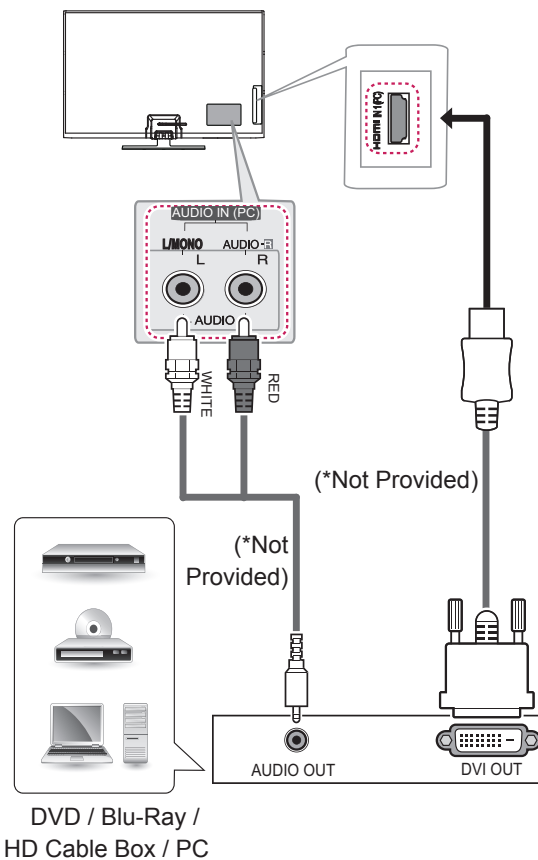
Transmits the digital video and audio signals from an external device to the TV. Connect the external device and the TV with the HDMI cable as shown.

Choose any HDMI input port to connect. It does not matter which port you use.

! NOTE

- It is recommended to use the TV with the HDMI connection for the best image quality.
- Use the latest High Speed HDMI™ Cable with CEC (Customer Electronics Control) function.
- High Speed HDMI™ Cables are tested to carry an HD signal up to 1080p and higher.
- Supported HDMI Audio format : Dolby Digital, PCM (Up to 192 KHz, 32k/44.1k/48k/88k/96k/176k/192k, DTS Not supported.)

DVI to HDMI connection

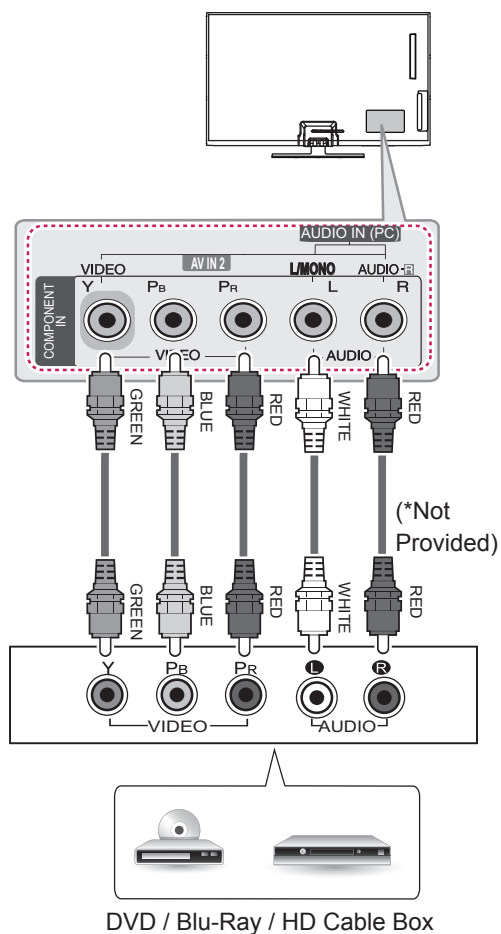


Transmits the digital video signal from an external device to the TV. Connect the external device and the TV with the DVI-HDMI cable as shown. To transmit an audio signal, connect an audio cable.

! NOTE

- Depending on the graphics card, DOS mode may not work if a HDMI to DVI Cable is in use.

Component Connection

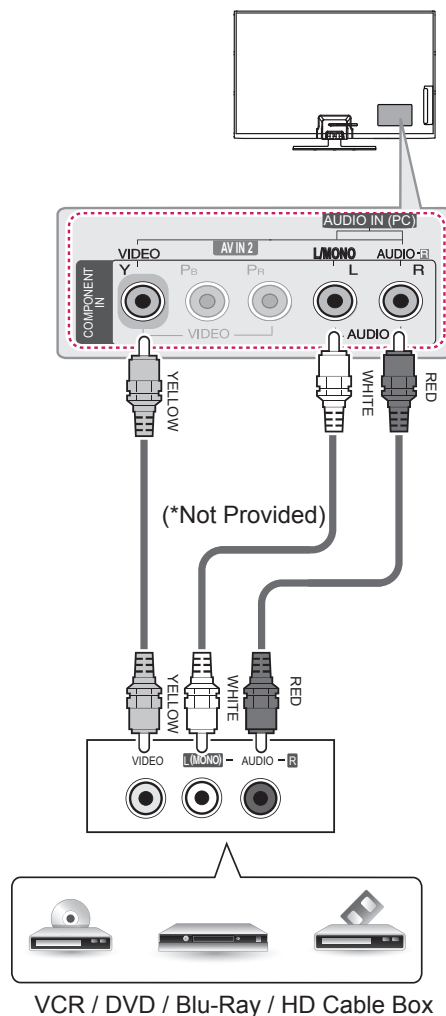


Transmits analog video and audio signals from an external device to the TV. Connect the external device and the TV with a component cable as shown.

! NOTE

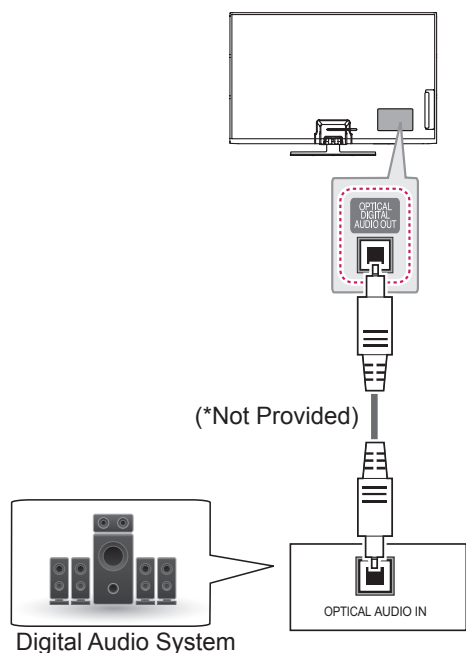
- If cables are not installed correctly, it could cause this image to display in black and white or with distorted colours.

Composite Connection



Transmits analog video and audio signals from an external device to the TV. Connect the external device and the TV with the composite cable as shown.

Audio Connection



You may use an external audio system instead of the built-in speaker.

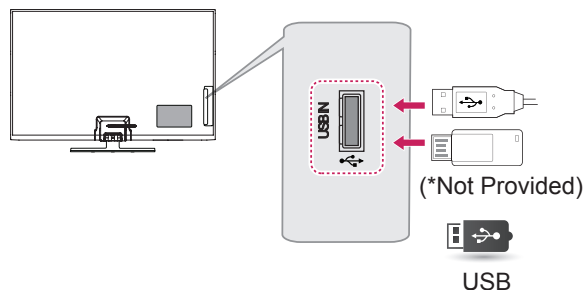
Digital optical audio connection

Transmits a digital audio signal from the TV to an external device. Connect the external device and the TV with the optical audio cable as shown.

! NOTE

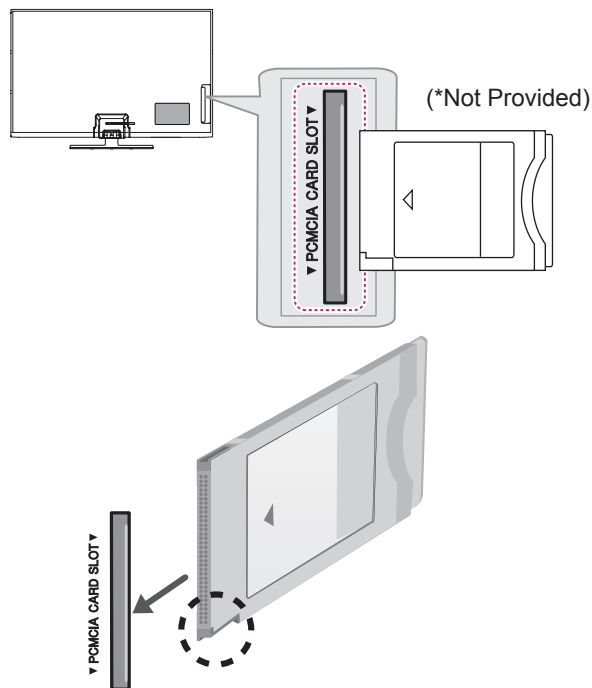
- Do not look into the optical output port. Looking at the laser beam may damage your vision.
- Audio with ACP (Audio Copy Protection) function may block digital audio output.

USB Connection



Connect a USB storage device such as a USB flash memory, external hard drive, or a USB memory card reader to the TV and access the My media menu to use various multimedia files.

CI module Connection

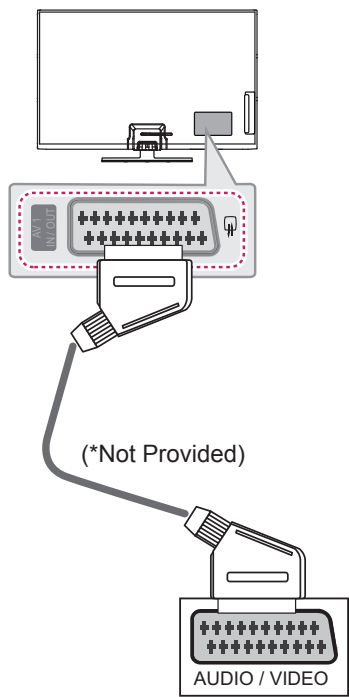


View the encrypted (pay) services in digital TV mode. This feature is not available in all countries.

! NOTE

- Check if the CI module is inserted into the PCMCIA card slot in the right direction. If the module is not inserted properly, this can cause damage to the TV and the PCMCIA card slot.

Euro Scart Connection



Transmits the video and audio signals from an external device to the TV set. Connect the external device and the TV set with the euro scart cable as shown.

Output Type	AV1 (TV Out ¹)
Current input mode	
Digital TV	Digital TV
Analogue TV, AV	Analogue TV
Component	
HDMI	

1 TV Out : Outputs Analogue TV or Digital TV signals.



NOTE

- Any Euro scart cable used must be signal shielded.

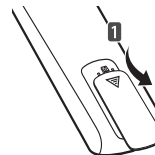
REMOTE CONTROL

The descriptions in this manual are based on the buttons on the remote control.

Please read this manual carefully and use the TV correctly.

To replace batteries, open the battery cover, replace batteries (1.5 V AAA) matching the $\oplus$ and $\ominus$ ends to the label inside the compartment, and close the battery cover.

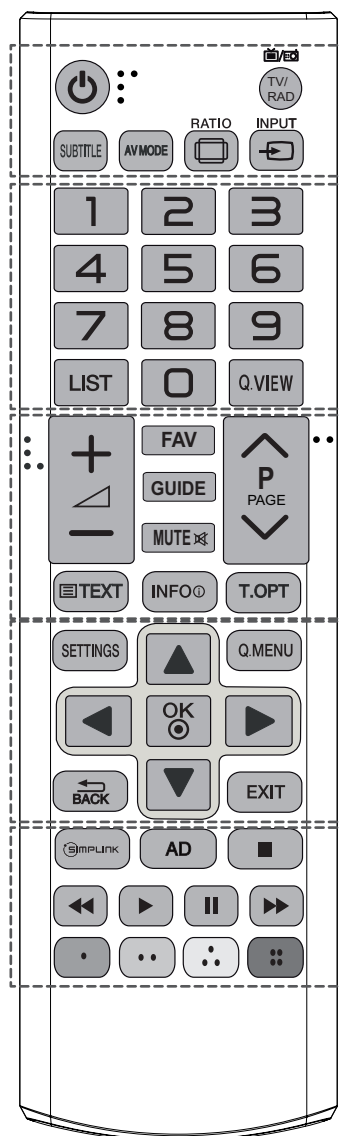
To remove the batteries, perform the installation actions in reverse.



CAUTION

- Do not mix old and new batteries, as this may damage the remote control.

Make sure to point the remote control toward the remote control sensor on the TV.



POWER Turns the TV on or off.

SUBTITLE Recalls your preferred subtitle in digital mode.

AV MODE Selects an AV mode.

RATIO Resizes an image.

INPUT Changes the input source.

TV/RAD Selects Radio, TV and DTV programme.

LIST Accesses the saved programme list.

Q.VIEW Returns to the previously viewed programme.

FAV Accesses your favourite programme list.

GUIDE Shows programme guide.

MUTE Mutes all sounds.

TEXT, **T.OPT** These buttons are used for teletext.

PAGE Moves to the previous or next screen.

INFO Views the information of the current programme and screen.

SETTINGS Accesses the main menus.

Q. MENU Accesses the quick menus.

OK Selects menus or options and confirms your input.

Navigation buttons (up/down/left/right) Scrolls through menus or options.

Back Returns to the previous level.

EXIT Clears all on-screen displays and return to TV viewing.

SIMPLINK Accesses the AV devices connected with the HDMI cable through HDMI-CEC. Opens the SIMPLINK menu.

AD Switches the Audio Description On or Off.

II(FREEZE) Freezes the current frame while using the TV, AV, Component, or HDMI input source.

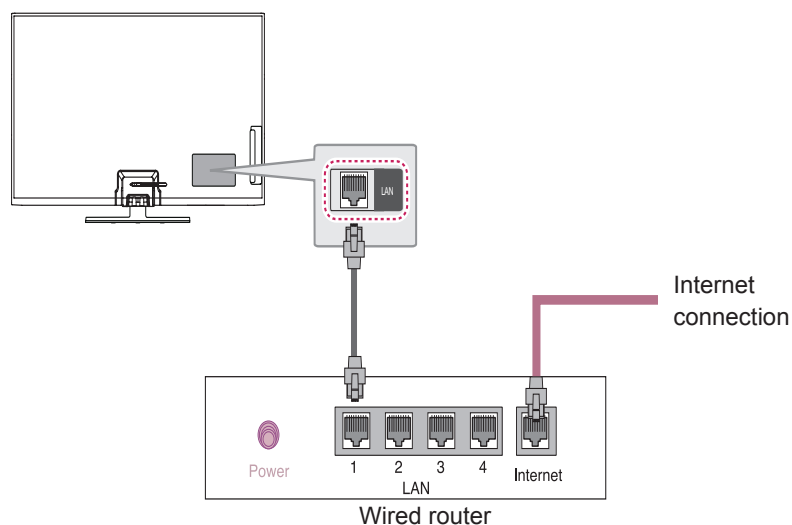
Control buttons (■, ►, II, ◀, ▶) Controls the MY MEDIA menus, or the SIMPLINK compatible devices (USB, SIMPLINK).

Colour buttons These buttons are used for teletext (on TELETEXT models only), Programme edit. (●): Red, (■): Green, (■): Yellow, (■): Blue

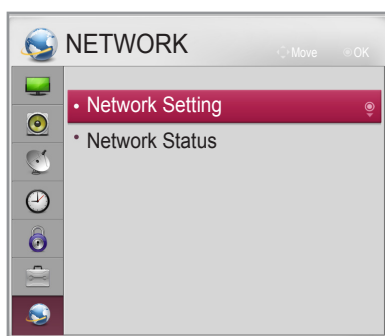
NETWORK SETTING

(Depending on model)
Image shown may differ from your TV.

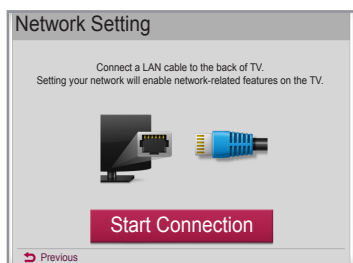
Wired Network Connection



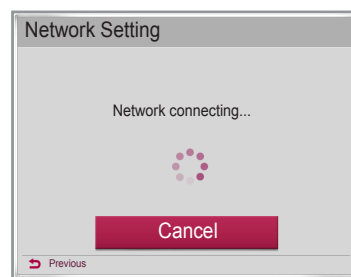
- 1 Press the **SETTING** button to access the main menu.
- 2 Select the **NETWORK** → **Network Setting** menu.



- 3 Select the **Start Connection**.



- 4 The device automatically tries to connect to the network.



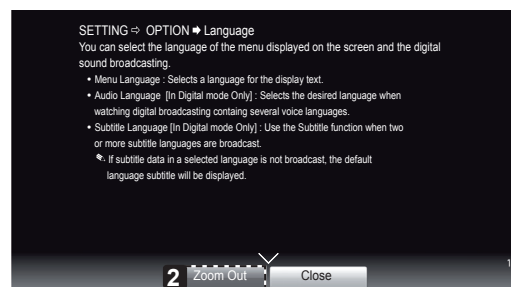
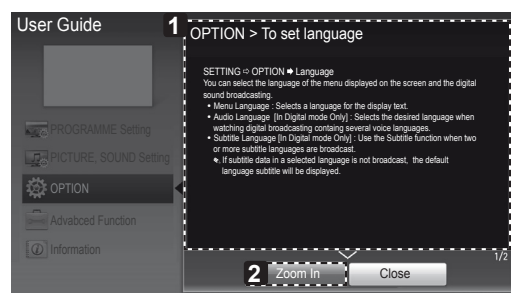
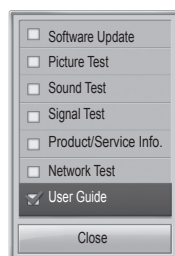
- 5 The connected network is displayed. Select the **Complete** to confirm the network connection.



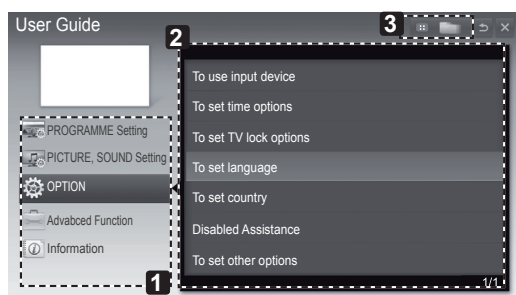
USING THE USER GUIDE

User Guide allows you to more easily access the detailed TV information.

- 1 Press **SETTINGS** to access the main menus.
- 2 Press the **RED** button to access the **Customer Support** menus.
- 3 Press the Navigation buttons to scroll to **User Guide** and press **OK**.



- 1 Shows the description of the selected menu. You can use **^** **v** to move between pages.
- 2 Zooms in or out the screen.



- 1 Allows to select the category you want.
- 2 Allows to select the item you want. You can use **^** **v** to move between pages.
- 3 Allows to browse the description of the function you want from the index.

MAINTENANCE

Cleaning your TV

Clean your TV regularly to keep the best performance and to extend the product lifespan.



CAUTION

- Make sure to turn the power off and disconnect the power cord and all other cables first.
- When the TV is left unattended and unused for a long time, disconnect the power cord from the wall outlet to prevent possible damage from lightning or power surges.

Screen, frame, cabinet and stand

- To remove dust or light dirt, wipe the surface with a dry, clean, and soft cloth.
- To remove major dirt, wipe the surface with a soft cloth dampened in clean water or a diluted mild detergent. Then wipe immediately with a dry cloth.



CAUTION

- Avoid touching the screen at all times, as this may result in damage to the screen.
- Do not push, rub, or hit the screen surface with your fingernail or a sharp object, as this may result in scratches and image distortions.
- Do not use any chemicals as this may damage the product.
- Do not spray liquid onto the surface. If water enters the TV, it may result in fire, electric shock, or malfunction.

Power cord

Remove the accumulated dust or dirt on the power cord regularly.

TROUBLESHOOTING

Problem	Solution
Cannot control the TV with the remote control.	• Check the remote control sensor on the product and try again. • Check if there is any obstacle between the product and the remote control. • Check if the batteries are still working and properly installed (⊕ to ⊕, ⊖ to ⊖).
No image display and no sound is produced.	• Check if the product is turned on. • Check if the power cord is connected to a wall outlet. • Check if there is a problem in the wall outlet by connecting other products.
The TV turns off suddenly.	• Check the power control settings. The power supply may be interrupted. • Check if the Auto sleep feature is activated in the Time settings. • If there is no signal while the TV is on, the TV will turn off automatically after 15 minutes of inactivity.
When connecting to the PC (HDMI DVI), 'No signal' or 'Invalid Format' is displayed.	• Turn the TV off/on using the remote control. • Reconnect the HDMI cable. • Restart the PC with the TV on.

SPECIFICATIONS

Product specifications may be changed without prior notice due to upgrade of product functions.

For the power supply and power consumption, refer to the label attached to the product.

MODELS		42PN45**	50PN45**
		42PN450D-ZA 42PN451D-ZA 42PN452D-ZA 42PN450B-ZA 42PN4503-ZA 42PN450D-ZE 42PN451D-ZE 42PN452D-ZE 42PN450B-ZE 42PN450D-ZF 42PN451D-ZF 42PN452D-ZF 42PN450B-ZF	50PN450D-ZA 50PN451D-ZA 50PN452D-ZA 50PN450B-ZA 50PN4503-ZA 50PN450D-ZE 50PN451D-ZE 50PN452D-ZE 50PN450B-ZE 50PN450D-ZF 50PN451D-ZF 50PN452D-ZF 50PN450B-ZF
Dimensions (W x H x D)	With stand (mm)	983.6 x 650.3 x 250.0	1168.0 x 755.4 x 292.7
	Without stand (mm)	983.6 x 595.6 x 57.0	1168.0 x 698.6 x 57.0
Weight	With stand (kg)	19.6	25.4
	Without stand (kg)	18.4	24.0
MODELS		50PN65**	60PN65**
		50PN6500-ZA 50PN650S-ZA 50PN650T-ZA 50PN651T-ZA 50PN6500-ZB 50PN650S-ZB 50PN650T-ZB 50PN6504-ZB 50PN6506-ZB 50PN651T-ZB 50PN6500-ZC 50PN650S-ZC 50PN650T-ZC 50PN651T-ZC	60PN6500-ZA 60PN650S-ZA 60PN650T-ZA 60PN651T-ZA 60PN6500-ZB 60PN650S-ZB 60PN650T-ZB 60PN6504-ZB 60PN6506-ZB 60PN651T-ZB 60PN6500-ZC 60PN650S-ZC 60PN650T-ZC 60PN651T-ZC
Dimensions (W x H x D)	With stand (mm)	1168.0 x 755.4 x 292.7	1386.8 x 874.0 x 340.0
	Without stand (mm)	1168.0 x 698.6 x 57.0	1386.8 x 821.7 x 57.0
Weight	With stand (kg)	26.1	37.7
	Without stand (kg)	24.7	34.5
CI Module Size (W x H x D)		100.0 mm x 55.0 mm x 5.0 mm	
Environment condition	Operating Temperature	0 °C to 40 °C	
	Operating Humidity	Less than 80 %	
	Storage Temperature	-20 °C to 60 °C	
	Storage Humidity	Less than 85 %	

	Satellite Digital TV ¹	Digital TV ²	Digital TV	Analogue TV
Television system	DVB-T DVB-C DVB-S/S2	DVB-T/T2 DVB-C	DVB-T DVB-C	PAL/SECAM B/G/I/D/K, SECAM L/L' ³
Programme coverage	VHF, UHF C-Band, Ku-Band	VHF, UHF		VHF: E2 to E12, UHF : E21 to E69, CATV: S1 to S20, HYPER: S21 to S47
Maximum number of storable programmes	6,000	1,800		
External antenna impedance	75 Ω			

1 Only satellite models

2 Only DVB-T2 support models

3 Except for DVB-T2 support models

HDMI/DVI-DTV supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720x480	31.469 31.5	59.94 60
720x576	31.25	50
1280x720	37.5 44.96 45	50 59.94 60
1920x1080	33.72 33.75 28.125 26.97 27 33.716 33.75 56.25 67.43 67.5	59.94 60 50 23.97 24 29.976 30.00 50 59.94 60

Component port connecting information

Component ports on the TV	Y	P _B	P _R
---------------------------------	---	----------------	----------------

Video output ports on DVD player	Y	P _B	P _R
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	Pb	Pr

Signal	Component
480i/576i	O
480p/576p	O
720p/1080i	O
1080p	O (50 Hz / 60 Hz only)

HDMI/DVI-PC supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640x350	31.468	70.09
720x400	31.469	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1360x768	47.712	60.01
1280x1024	63.981	60.02
1920x1080	67.5	60.02

(Only 50PN65**, 60PN65**)



Please contact LG First.
If you have any inquiries or comments,
please contact LG customer information centre.

Record the model number and serial number of
the TV.
Refer to the label on the back cover and quote
this information to your dealer when requiring any
service.

MODEL _____

SERIAL _____



LG Customer Information Centre			
Country	LG Service ☎	Country	LG Service ☎
Österreich	0 810 144 131	Nederland	0900 543 5454
Belgie	015 200 255	Norge	800 187 40
Luxemburg	0032 15 200 255	Polska	801 54 54 54
България	07001 54 54	Portugal	808 78 54 54
Česká Rep.	810 555 810	România	031 228 3542
Danmark	8088 5758	Slovensko	0850 111 154
Suomi	0800 0 54 54	España	902 500 234
France	3220 dites LG ou tapez 54	Sverige	0770 54 54 54
Deutschland	01803 11 54 11	Schweiz	0848 543 543
Ελλάδα	801 11 200 900, 210 4800 564	United Kingdom	0844 847 5454
Magyarország	06 40 54 54 54	Россия	8 800 200 7676
Éire	0818 27 6955	Eesti	800 9990
Italia	199600099	Україна	0 800 303 000
Беларусь	8 820 0071 1111	Казахстан	8 8000 805 805, 2255(GSM)
Latvija	80200201	Узбекистан	8 800 120 2222
Lietuva	880008081	Кыргызстан	8 0000 710 005
www.lg.com			

User Guide

This is a 「User Guide」 installed on the TV.

The contents of this guide are subject to change without prior notice for quality improvement.

❏ To view programme information

Press **INFO** button.

Displays information on current programme and/or current time, etc.

❑ To set favourite programmes

SETTINGS ⇒ SETUP → Programme Edit

- 1 Press the Q.MENU button on the Programme Edit screen and select Favourite Group.
- 2 Select the desired programme.
- 3 Press the FAV button. The selected programme will be saved to your favourite.

❑ To use Favourite

Press the FAV button.

The favourite list will appear. Select the desired preset favourite programme from Favourite List A-D.

Press **GUIDE** button.

[In Digital mode only]

Obtains information about programmes and airtime. Checks the broadcasting time of the desired programme and schedule viewing.

❏ Automatically Setting Up Programme

SETTINGS ⇒ SETUP → Auto Tuning

Automatically tunes the programmes.

- 1 Select Country where the TV is used. Programme settings change depending on the country you choose.
 - 2 Initiate Auto Tuning.
 - 3 Select Input Source of your choice.
 - 4 Set Auto Tuning following screen instructions.
- ✎ If Input Source is not connected properly, programme registration may not work.
 - ✎ Auto Tuning only finds programmes that are currently broadcasting.
 - ✎ If Lock System is turned on, a pop-up window will appear asking for password.

□ Cable DTV Setting option

When searching for programmes using FULL setting it can take a long time. The following values are needed in order to search all available programmes quickly and correctly. The commonly used values are provided as “default”.

- **Frequency** : Enter a user-defined frequency.
- **Symbol rate** : Enter a user-defined symbol rate (Symbol rate: Speed at which a device such as modem sends symbols to a programme).
- **Modulation** : Enter a user-defined modulation. (Modulation: Loading of audio or video signals onto carrier).
- **Network ID** : Unique identifier allocated for each user.
- **Start Frequency** : Enter a user-defined start frequency range.
- **End Frequency** : Enter a user-defined end frequency range.

❏ Cable DTV Setting

SETTINGS ⇒ SETUP → Cable DTV Setting

[In Cable mode only]

When Channel Auto Update is On, you can update information for all the programmes that can be updated, including the programme currently being watched. When Channel Auto Update is Off, you can only update information for the programme currently being watched.

- ✎ The range that a user can select from the Service Operator menu differs depending on number of Service Operator supported by each country.
- ✎ If number of supported Service Operator for each country is 1, corresponding function becomes inactive.
- ✎ You can not select the Cable DTV Setting when the service operator is set to “Ziggo”.

❏ To use Manual Tuning

SETTINGS ⇒ SETUP → Manual Tuning

Adjusts programmes manually and saves the results.

For digital broadcasting, signal strength and signal quality can be checked.

For analogue broadcasting, you can set up station names and use fine tuning.

Normally fine tuning is only necessary if reception is poor.

❏ To edit programmes

SETTINGS ⇒ SETUP → Programme Edit

Edits the saved programmes.

Set as favourite programme, block/unblock programme, skip programme etc. of the selected programme.

Press **TEXT** button.

[depending on the country]

Teletext is a free service provided by the TV station that offers text-based information about TV programmes, news and weather.

The teletext decoder of this TV can support the SIMPLE, TOP and FASTEXT systems.

- Colour button: To select the preceding or following page.
- Number button: Enters the desired page number.
- **P**  : To select the preceding or following page.

❏ Special Teletext Function

Press **T. OPT** button.

Select the **Text Option** menu.

-  **Index** : Select each index page.
-  **Time** : When viewing a TV programme, select this menu to display the time at the top right hand corner of the screen.
-  **Hold** : Stops the automatic page change which will occur if a teletext page consists of 2 or more sub pages.

-  **Reveal** : Select this menu to display concealed information, such as solutions to riddles or puzzles.
-  **Update** : Displays the TV picture on the screen while waiting for a new teletext page.
- **Language** [In Digital Mode Only] : Sets Teletext language.

Press the **TEXT** button.

[In UK/Ireland only]

The TV gives you access to digital teletext which gives much better text, graphics etc. than older analogue teletext. This digital teletext can access special digital teletext services and specific services which broadcast digital teletext.

□ Teletext within digital service

- 1 Press the numeric or **P**  button to select a certain service which broadcasts digital teletext.
- 2 Follow the indications on digital teletext and move onto the next step by pressing **TEXT**, **OK**, Navigation, Red, Green, Yellow, Blue or NUMBER buttons etc..
- 3 Press the number or **P**  button to use a different digital teletext service.

□ Teletext in digital service

- 1 Press the numeric or **P**  button to select a certain service which broadcasts digital teletext.
- 2 Press the **TEXT** or colour button to switch on teletext.
- 3 Follow the indications on digital teletext and move onto the next step by pressing **OK**, Navigation, Red, Green, Yellow, Blue or NUMBER buttons etc..
- 4 Press the **TEXT** or colour button to switch off digital teletext and return to TV viewing.

SETTINGS ⇒ OPTION → Data Service

[Depending on country]

This function allows users to choose between MHEG (Digital Teletext) and Teletext if both exist at the same time.

If only one of them exists, either MHEG or Teletext is enabled regardless of which option you selected.

SETTINGS ⇒ SETUP → CI Information

- This function enables you to watch some encrypted services (pay services).
- If you remove the CI Module, you cannot watch pay services.
- CI (Common Interface) functions may not be possible depending upon the country broadcasting circumstances.
- When the module is inserted into the CI slot, you can access the module menu.
- To purchase a module and smart card, contact your dealer.

- When the TV is turned on after inserting a CI Module, you may not have any sound output. The Smart Card may not be compatible with the CI module.
- When using a CAM(Conditional Access Module), please make sure it meets fully the requirements of either DVB-CI or CI plus.
- An abnormal process of CAM(Conditional Access Module) may cause a bad picture.
- [Depending on model] If the TV does not display any video and audio when CI+ CAM is connected, please contact to the Terrestrial/Cable/Satellite Service Operator.

SETTINGS ⇒ PICTURE → Aspect Ratio

Selects the screen aspect ratio.

- **16:9**: Resizes images to fit the screen width.
- **Just Scan**: Displays video images in the original size without removing parts of the edge of the image.
 - ✎ In DTV, Component, HDMI, and DVI (over 720p) mode, **Just Scan** is available.
- **Original**: When your TV receives a wide screen signal it will automatically change to the picture format broadcasted.

- **Full Wide:** When TV receives the wide screen signal, it will let you adjust the picture horizontally or vertically, in a linear proportion, to fill the entire screen fully. 4:3 and 14:9 video is supported in full screen without any video distortion through DTV input.
 In Analogue/DTV/AV/Scart mode, **Full Wide** is available.
- **4:3:** Resizes images to the previous standard 4:3.
- **14:9:** You can view a picture format of 14:9 or a general TV programme in the 14:9 mode. The 14:9 screen is viewed in the same way as in 4:3, but is moved up or down.
- **Zoom:** Resizes images to fit the screen width. The top and bottom parts of the image may be cut off.

- **Cinema Zoom:** Choose Cinema Zoom when you want to enlarge the picture in correct proportion.

- ✎ While viewing an external device, these cases may result in image burn:
 - a video with stationary caption (such as network name)
 - 4 : 3 aspect ratio mode for an extended period

Take caution when using these functions.

- ✎ Available picture size may differ depending on the input signal.
- ✎ The screen aspect ratios on HDMI-PC or RGB-PC input are available in 4:3 and 16:9 only. (Only for models supporting PC connection)

[Depending on model]

Press the **AV MODE** button.

Sets the best PICTURE / AUDIO optimized for different AV modes.

- **Off**: Operates with the value set in the PICTURE / AUDIO Menu.
- **Cinema**: Optimizes picture and audio settings for movies.
- **Game**: Optimizes picture and audio settings for games.

❑ To adjust picture with Picture Wizard

SETTINGS ⇒ PICTURE → Picture Wizard II

Calibrates and adjusts for optimum picture quality using the remote control and the Picture Wizard without expensive pattern devices or help from a specialist.

Follow the instructions on screen to obtain optimum picture quality.

❏ To select Picture Mode

SETTINGS ⇒ PICTURE → Picture Mode

Selects the picture mode optimized for the viewing environment or the programme.

- **Eco/APS:** [Depending on country] The Energy Saver feature changes settings on the TV to reduce power consumption.
-  **Expert:** Menu for adjusting picture quality that allows experts and amateurs to enjoy the best TV viewing. This is the adjustment menu provided for ISF-certified picture tuning professionals. (ISF logo can only be used on ISF-certified TVs.)

ISFccc: Imaging Science Foundation Certified Calibration Control

- ✎ Depending on input signal, available range of picture modes may differ.
- ✎  **Expert** mode is for picture tuning professionals to control and fine-tune using a specific image. For normal images, the effects may not be dramatic

❏ To fine-tune picture mode

SETTINGS ⇒ PICTURE → Picture Mode → Panel Light / Contrast / Brightness / Sharpness / Colour / Tint / Colour Temp.

First select a Picture Mode of your choice.

- **Panel Light** : Adjusts the display brightness by varying the brightness of the PDP panel.
- ✎ Depending on the input signal or other picture settings, the range of detailed items for adjustment may differ.

❏ To set advanced control

SETTINGS ⇒ PICTURE → Picture Mode → Advanced Control / Expert Control

Calibrates the screen for each picture mode; or adjusts picture settings for a special screen.

First select a Picture Mode of your choice.

- **Dynamic Contrast:** Adjusts the contrast to the optimal level according to the brightness of the image.
- **Dynamic Colour:** Adjusts colours to make the image appear in more natural colours.

- **Skin Colour** : Skin colour spectrum can be separately set to implement the skin colour as defined by the user.
- **Grass Colour** : Natural colour spectrum (meadows, hills, etc.) can be separately set.
- **Sky Colour** : Sky colour is set separately.
- **Gamma**: Sets the gradation curve according to the output of picture signal in relation to the input signal.

- **Colour Gamut:** Selects the range of colours that can be expressed.
- **Edge Enhancer:** Shows clearer and distinctive yet natural edges of the video.
- **Expert Pattern:** Patterns used for expert adjustment
- **Colour Filter:** Filters a specific colour spectrum in RGB colours to fine-tune colour saturation and hue accurately.

- **Colour Temperature:** Adjusts the overall tone of the screen as desired. In Expert mode, detailed fine-tuning can be set via Gamma method, etc.
 - **Colour Management System:** This is a system that experts use when they adjust colour with a test pattern. They can select from six colour areas (Red / Green / Blue / Cyan / Magenta / Yellow) without affecting other colours. For normal images, adjustments may not result in noticeable colour changes.
-  Depending on input signal or other picture settings, the range of detailed items for adjustment may differ.

❏ To set Picture Option

SETTINGS ⇒ PICTURE → Picture Mode → Picture Option

Adjusts detailed setting for images.

- **Noise Reduction:** Eliminates noise in the picture.
- **MPEG Noise Reduction:** Reduces noise caused by compressing digital video.
- **Black Level:** Adjusts the brightness and contrast of the screen to suit the black level of the input picture by using the blackness (black level) of the screen.
- **Real Cinema:** Optimizes the screen for movie viewing.
- **Motion Eye Care:** [Depending on model] Saves power consumption by adjusting the brightness corresponding to the movement of the image on the screen.

❏ To reset picture settings

SETTINGS ⇒ PICTURE → Picture Mode → Picture Reset

Resets picture settings that the user customizes.

Each picture mode is reset. Select the picture mode you wish to reset.

SETTINGS ⇒ PICTURE → Energy Saving

Reduces power consumption by adjusting screen brightness.

- **Off** : Turns off Energy Saving mode.
- **Minimum / Medium / Maximum** : Applies the pre-set Energy Saving mode.
- **Screen Off** : Screen is turned off and only sound is played. Press any button on the remote control to turn the screen back on.

❑ To use Sound Mode

SETTINGS ⇒ AUDIO → Sound Mode

Adjusts TV audio to an optimal level according to a selected sound mode.

- Standard : Suitable for all types of video.
- Music / Cinema / Sport / Game : Sets audio optimized for a specific genre.

❑ To adjust User Setting function

SETTINGS ⇒ AUDIO → Sound Mode → User Setting

Adjusts the volume to a level of your choice using the User EQ.

- Reset : Resets voice options that the user has changed.

❏ To use TV speaker

SETTINGS ⇒ AUDIO → Sound Out → TV Speaker

Sound is output through the TV speaker.

❏ To use External Speaker

SETTINGS ⇒ AUDIO → Sound Out → External Speaker (Optical)

[Only available for models with an optical port]

Sound is output through the speaker connected to the optical port.

✎ SimpLink is supported.

□ To use Digital Sound Out

SETTINGS ⇒ AUDIO → Sound Out → External Speaker (Optical) → Digital Sound Out

[Depending on model]

Sets up Digital Sound Out.

Item	Audio Input	Digital Audio output
Auto	MPEG	PCM
	Dolby Digital	Dolby Digital
	Dolby Digital Plus	Dolby Digital
	HE-AAC	Dolby Digital
PCM	All	PCM

❏ To connect and use LG audio device

SETTINGS ⇒ AUDIO → Sound Out → LG Sound Sync (Optical)

[Only available for models with an optical port]

Connect LG audio device with the  logo to the optical digital audio output port. LG audio device allows you to enjoy rich powerful sound easily.

❏ To set Virtual Surround mode

SETTINGS ⇒ AUDIO → Virtual Surround

LG's proprietary audio processing technology allows 5-channel-like surround sound from two speakers.

✎ If Clear Voice II is set to On, Virtual Surround will not be selected.

❏ To adjust Clear Voice II function

SETTINGS ⇒ AUDIO → Clear Voice II

Boosts audio clarity from the TV.

❑ To set Auto Volume

SETTINGS ⇒ AUDIO → Auto Volume

Auto Volume to On. Varying volume output from channel to channel is automatically adjusted for convenient TV watching when clicking through different programme.

❑ To synchronize audio and video

SETTINGS ⇒ AUDIO → AV Sync. Adjust

Synchronizes video and audio directly when they do not match.

If you set AV Sync. Adjust to ON, you can adjust the sound output (TV speakers or SPDIF) to the screen image.

❏ To adjust audio balance

SETTINGS ⇒ AUDIO → Balance

Adjusts left/right audio balance.

❏ To use Sound Optimizer function

SETTINGS ⇒ AUDIO → Sound Optimizer

optimized sound for custom TV installation.

- Normal: General sound mode.
- Wall Mount Type: Optimizes sound for a wall-mounted TV.
- Stand Type: Optimizes sound for a stand-mounted TV.

❏ DTV Audio Setting

SETTINGS ⇒ AUDIO → DTV Audio Setting

[Depending on model]

When an input signal comprises different audio signals, this function allows you to select the audio type you want.

If set to **AUTO**, the search order is HE-AAC → Dolby Digital+ → Dolby Digital → MPEG and output is produced in the first Audio Format found.

- ✎ In Italy / Latvia / Lithuania only, the search order is HE-AAC → Dolby Digital+ → MPEG → Dolby Digital.
- ✎ If the selected Audio Format is not supported, another Audio Format may be used for output.

❏ To select external input

Press **INPUT** button.

Selects external input.

✎ Edit the device name: You can edit the name of the external device connected to the external input port.

❏ To use SIMPLINK

SIMPLINK is a feature that enables you to control and manage various multimedia devices conveniently using only the TV remote control via the SIMPLINK menu.

- 1 Connect the TV's **HDMI IN** terminal and the SIMPLINK device's HDMI output terminal using an HDMI cable.
 - [Depending on model] For home theatre units with a SIMPLINK function, connect HDMI terminals as above, and use an optical cable to connect Optical Digital Audio Out from the TV to Optical Digital Audio In of the SIMPLINK device.
- 2 Select **INPUT** ⇒ **SimpLink**. SIMPLINK menu window appears.
- 3 In SIMPLINK Setting window, sets SIMPLINK function to **ON**.
- 4 In SIMPLINK menu window, selects the device you want to control.

- ✎ This function is only compatible with devices with the SIMPLINK logo.
- ✎ To use the SIMPLINK function, you need to use a high-speed HDMI® cable (with CEC (Consumer Electronics Control) feature added). High-speed HDMI® cables have the No. 13 pin connected for information exchange between devices.
- ✎ If you switch to another input, the SIMPLINK device will stop.
- ✎ If a third-party device with the HDMI-CEC function is also used, the SIMPLINK device may not work normally.
- ✎ [Depending on model] If you select or play media from a the device with a home theatre function, the **HT Speaker** is automatically connected. Be sure to connect with an optical cable (sold separately) to use the **HT Speaker** function.

□ SIMPLINK function description

- Direct Play: Plays the multimedia device on the TV instantly.
- Select multimedia device: Selects the desired device via the SIMPLINK menu to control it from the TV screen instantly.
- Disc playback: Manages the multimedia device with the TV remote control.
- Power off all devices: When you power off the TV, all connected devices are turned off.
- Sync Power on: When the equipment with SIMPLINK function connected HDMI terminal starts to play, the TV will automatically turn on.
- Speaker: [Depending on model] Select speaker either on the home theatre unit or the TV.

❏ To use Sleep Timer

SETTINGS ⇒ TIME → Sleep Timer

Turns off the TV after a preset number of minutes.

To cancel the Sleep Timer, select Off.

❏ To set current time

SETTINGS ⇒ TIME → Clock

Checks or changes the time while watching TV.

- **Auto** : Synchronizes the TV clock to the digital time information sent by the TV station.
- **Manual** : Sets the time and date manually if the auto setup does not correspond to the current time.

❑ To set the TV to turn on and off automatically

SETTINGS ⇒ TIME → On Time / Off Time

Sets On / Off time.

Select Off on Repeat to discontinue On Time / Off Time.

✎ To use On Time / Off Time, set the current time correctly.

✎ Even when the On Time function is on, the TV will turn off automatically in 120 minutes when no button is pressed within that time.

❏ To set Automatic Standby

SETTINGS ⇒ TIME → Automatic Standby

[Depending on model]

If you do not press any button on the TV or remote control for a certain period, the TV will automatically switch to standby mode.

✎ This function does not work on Store Demo mode or while software update.

❏ To set password

SETTINGS ⇒ LOCK → Set Password

Sets or changes TV password.

✎ The initial password is set to 「0000」.

When France is selected for Country, password is not 「0000」 but 「1234」.

When France is selected for Country, password cannot be set to 「0000」.

❏ To lock system

SETTINGS ⇒ LOCK → Lock System

Locks the selected channel or external input.

First set Lock System to On.

- **Block Programme** : Blocks programmes with content inappropriate for children. Programmes can be selected but the screen is blank and the audio is muted. To watch a locked programme, enter the password.

- **Parental Guidance** : This function operates according to information from the broadcaster. Therefore if the signal has incorrect information, this function does not operate. Prevents children from watching certain adult TV programmes according to the ratings limit set. Enter a password to watch a blocked programme. Ratings differ by country.
- **Input Block** : Block the input sources.

❏ To use Key Lock

SETTINGS ⇒ LOCK → Key Lock

Locks control buttons on TV.

- ✎ Key Lock function remains intact even in case of power outage or when the power cord is removed from the wall socket.
- ✎ Key Lock function can only be set by remote control, and not by the button on the TV.
- ✎ Even though Key Lock is set to ON, TV's buttons can turn on the power.

SETTINGS ⇒ OPTION → Language

You can select the language of the menu displayed on the screen and the digital sound broadcasting.

- **Menu Language** : Selects a language for the display text.
- **Audio Language [In Digital mode Only]** : Selects the desired language when watching digital broadcasting containing several voice languages.
- **Subtitle Language [In Digital mode Only]** : Use the Subtitle function when two or more subtitle languages are broadcast.
 - 📖 If subtitle data in a selected language is not broadcast, the default language subtitle will be displayed.

- **Text Language** [In Digital mode Only] : Use the Text language function when two or more Text languages are broadcast.
 - ✎ If teletext data in a selected language is not broadcast, the default Text language will be displayed.
 - ✎ If you select the wrong local country, teletext may not appear correctly on the screen and some problems may occur during teletext operation.

SETTINGS ⇒ OPTION → Country

[Depending on country]

Sets the country that the TV uses.

TV settings are changed according to the broadcast environment of the selected country.

- ✎ If the country setting is changed, the **Auto Tuning** information screen may appear.
- ✎ In a country that Digital broadcasting regulation isn't fixed, some DTV functions may not work depending on digital broadcasting circumstances.
- ✎ If the country setting is set to "--", European terrestrial digital standard broadcasting programmes are available, but some DTV functions may not work properly.

SETTINGS ⇒ OPTION → Disability Assistance

Audio commentary or subtitles are provided for those who are hard of hearing or visually impaired.

- **Hard of Hearing:** This function is used for the hearing impaired. If it is set to on, the subtitle is displayed by default.
- **Audio Description:** This function is for the blind, and provides explanatory audio describing the current situation in a TV programme in addition to the basic audio. When **Audio Description** is selected **On**, basic audio and Audio Description are provided only for those programmes that have Audio Description included.

❏ To change TV mode

SETTINGS ⇒ OPTION → Mode Setting

Selects Home Use or Store Demo.

When in use in home, please select Home Use.

Store Demo mode is for store display.

❏ To use the ISM Method

SETTINGS ⇒ OPTION → ISM Method

This function removes image sticking which is caused by prolonged display of static images.

- **Normal:** Minimizes image sticking by gradually lowering the brightness when displaying static images and by increasing the brightness when displaying moving images.
- **Orbiter:** Minimizes image sticking by fine-moving images left, right, up or down every 2 minutes.

- **Colour Wash:** Removes image sticking by moving every pixel in a certain pattern on the screen for a specific period of time. Please use this function to remove temporary image sticking.
- ✎ Image sticking is commonly known in plasma TV when it displays static images for a long time. **ISM Method** delays the image sticking effect; it does not completely prevent the phenomenon. Please use this function with caution.

❏ To specify Factory Reset

SETTINGS ⇒ OPTION → Factory Reset

All stored information is deleted and TV settings are reset.

TV turns itself off and back on, and all settings are reset.

- ✎ When Lock System is in place, a pop-up window appears and asks for password.
- ✎ Do not turn off the power during initialization.

Plays content stored on a USB device (external HDD, USB memory stick) directly on the TV, easily and conveniently.

❑ To connect a USB device

Connect the USB storage device to the TV's **USB IN** terminal.

The connected USB storage device can be used immediately.

❑ To remove the USB device

Q.MENU ⇒ **USB Device**

Select a USB storage device that you want to remove.

When you see a message that the USB device has been removed, separate the device from the TV.

✎ Once a USB device has been selected for removal, it can no longer be read. Remove the USB storage device and then re-connect it.

❏ Using a USB storage device - warning

- ✎ If the USB storage device has a built-in auto recognition program or uses its own driver, it may not work.
- ✎ Some USB storage devices may not work or may work incorrectly.
- ✎ Use only USB storage devices formatted with the Windows FAT32 or NTFS File System.
- ✎ For external USB HDDs, it is recommended that you use devices with a rated voltage of less than 5 V and a rated current of less than 500 mA.

- ✎ It is recommended that you use USB memory sticks of 32 GB or less and USB HDDs of 1 TB or less.
- ✎ If a USB HDD with power-saving function does not work properly, turn the power off and on. For more information, refer to the user manual of the USB HDD.
- ✎ Data in the USB storage device can be damaged, so be sure to back up important files to other devices. Data maintenance is the user's responsibility and the manufacturer is not responsible for data loss.

❏ To use My Media

SETTINGS ⇒ MY MEDIA → Movie List / Photo List / Music List

Selects a file from the list. Displays the file that you choose.

Sets play related settings by checking option during disk playback.

❏ My Media supporting file

Maximum data transfer rate:

20 Mbps (megabits per second)

External subtitle formats supported:

*.smi, *.srt, *.sub (MicroDVD, SubViewer 1.0/2.0), *.ass, *.ssa, *.txt (TMPlayer), *.psb (PowerDivX)

Internal subtitle formats supported:

XSUB (supports internal subtitles generated from DivX6)

□ Available video file

Maximum: 1920 x 1080 @30p (only Motion JPEG 640x480 @30p)

.asf, .wmv

[Video] VC-1 Advanced Profile, VC-1 Simple and Main Profiles

[Audio] WMA Standard

.divx, .avi

[Video] DivX3.11, DivX4, DivX5, DivX6, XViD, H.264/AVC, Motion JPEG

[Audio] MPEG-1 Layer I, II, Dolby Digital, MPEG-1 Layer III (MP3)

.mp4, .m4v, .mov

[Video] H.264/AVC, MPEG-4 Part 2, XViD

[Audio] AAC, MPEG-1 Layer III (MP3)

.mkv

[Video] H.264/AVC, XViD, MPEG-4 Part2

[Audio] HE-AAC, Dolby Digital, MPEG-1 Layer III (MP3)

.ts, .trp, .tp, .mts, .m2ts

[Video] H.264/AVC, MPEG-2

[Audio] MPEG-1 Layer I, II, MPEG-1 Layer III (MP3), Dolby Digital,
Dolby Digital Plus, AAC

.vob

[Video] MPEG-1, MPEG-2

[Audio] Dolby Digital, MPEG-1 Layer I, II, DVD-LPCM

.mpg, .mpeg, .mpe

[Video] MPEG-1

[Audio] MPEG-1 Layer I, II

□ Available music file

File type : mp3

[Bit rate] 32 Kbps - 320 Kbps

[Sample freq.] 16 kHz - 48 kHz

[Support] MPEG1, MPEG2, Layer2, Layer3

□ Available photo file

Category : 2D(jpeg, jpg, jpe)

[Available file type] SOF0: baseline,
SOF1: Extend Sequential,
SOF2: Progressive

[Photo size] Minimum: 64 x 64

Maximum: Normal Type: 15360 (W) x 8640 (H)

Progressive Type: 1920 (W) x 1440 (H)

❏ Items to note when playing videos

- ✎ Some subtitles created by users may not work properly.
- ✎ The video and subtitle files should be placed in the same folder. For subtitles to display correctly, the video and subtitle files must have the same name.
- ✎ We do not support any stream that contains GMC (Global Motion Compensation) or Qpel (Quarterpel Motion Estimation).
- ✎ Only H.264/AVC profile level 4.1 and lower is supported.
- ✎ Video files that exceed 50 GB (gigabyte) are not supported for playback. The file size limit is dependent on the encoding environment.

If the following symptoms occur, please carry out the checks and adjustments described below. There may be no malfunction.

❏ Operational problems

☑ Cannot view certain programmes.

- Adjust the location or orientation of the antenna.
- Save the programmes you wish to view using **Auto Tuning** or **Programme Edit**.

☑ There is a delay after the TV is switched on before the image is fully visible.

- This is normal. Any delay is due to an image deletion process which cleans up image noise that may occur when the TV is first switched on.

❏ Image problems

SETTINGS ⇒ Customer Support → Picture Test

Run an Picture Test first to verify that the image signal output is normal.

If there is no problem with the test image, check connected external devices and the broadcast signal.

- ☑ Images from previous programme or other programmes linger or the screen displays annoying lines.
 - Adjusts the orientation of the antenna to the TV transmitter, or refer to the manual for instructions on connecting the antenna.

- ☑ Vibrating horizontal /vertical lines and fishnet patterns appear momentarily.
 - Such a problem may happen when there is strong electronic interference. Turn off other electronic devices such as mobile phones, power tools and other small electrical appliances.

- ☑ The screen display freezes or does not work properly during a digital broadcast.
 - This may occur in case of a weak signal or unstable reception. Adjust the antenna orientation and cable connections.
 - If the signal strength or quality is low on **Manual Tuning**, check with the TV station or administration office.

- ☑ Digital broadcasting is not available even though the cable is connected.
 - Check with the cable operator providing your subscription and/or signal. (Depending on your subscription, digital broadcasting may not be supported.)
- ☑ The display is inactive or unclear when connected to an HDMI® source.
 - Check the HDMI® cable specifications. If your HDMI® cable is not genuine, images may fade in and out or not be displayed properly.
 - Ensure that all cables are securely connected. When connections are not secure, images may not be properly displayed.
- ☑ Does not work with a USB storage device.
 - Verify that the USB device and cable is version 2.0 or higher.

❏ Sound problems

SETTINGS ⇒ Customer Support → Sound Test

Run a Sound Test first to verify that the sound signal output is normal.

If there is no problem with the test sound, check connected external devices and the broadcast signal.

☑ Screen display is on but there is no sound.

- Check other TV programmes.
- [Depending on model] Ensure the TV Speaker is set to On.

- ☑ For an analogue broadcast, stereo is not clear or sound comes from one speaker only.
 - In a poor reception area (areas with weak or unstable signals) or if Multi Audio is not stable, select **Mono** on **Multi Audio**.
 - Adjust the **Balance** using the Navigation Button.
- ☑ TV sound is not in sync with the image or the sound breaks up occasionally.
 - If the issue affects a specific TV programme only, it may be caused by problems with the broadcast signal for the individual station. Check with the TV station or your cable operator.

- ☑ The volume changes when I change programme.
 - Volume can vary from programme to programme.
 - Set **Auto Volume** to **On**.

- ☑ On certain programmes, there is no sound at all, or only the background music can be heard (in case of a programme created for overseas viewers).
 - In **Language**, set **Language** → **Audio Language** to the language of your choice. Even if you change the language on **Multi Audio**, you can go back to the default setup once you turn off the power or change the programme.

- ☑ There is no sound when connected to an HDMI® / USB source.
 - Make sure that the HDMI® cable is high speed.
 - Check that the USB device and cable is version 2.0 or higher.
 - Use only regular music (*.mp3) files.

❑ PC connection problem (Only for models supporting PC connection)

- ☑ The screen display does not come on after connecting to the computer.
 - Make sure that the computer and the TV are securely connected.
 - Check whether the resolution is correctly set for PC input.
 - To use the TV as a secondary monitor, check if the connected desktop or laptop supports dual monitor display.
- ☑ There is no sound after connecting the computer with the HDMI cable.
 - Check with manufacturer of your video card to ensure it supports HDMI voice output. (Video cards in DVI format require connection of a separate sound cable.)

☑ When connected to the computer, the display is partially cut off or shifts to one side.

- Set the resolution to support PC input.
(If this does not work, reboot the computer.)

❏ Problems replaying movies in My Media

✓ I cannot view the files on the **Movie List**.

- Check whether the file on the USB storage device can be read on a computer.
- Check whether the file extension is supported.

✓ The file is invalid. The above error message appears. Sound, video or subtitles is not normal.

- Make sure that the file replays normally on the computer's video player. (Check for damaged files.)
- Check if My Media can support the selected file.

✎ For information on requesting service, refer to the following menu.

SETTINGS ⇒ **Customer Support** → **Product/Service Info**.

Product certified before February 15, 2013
Продукт, сертифицированный до 15
февраля 2013 г.



BZ03

Product certified after February 15, 2013
Продукт, сертифицированный после 15
февраля 2013 г.





ПІІ 'ЛГ Електронікс Україна', Україна, 01004, м. Київ, вул. Басейна, 4 (літера А),
тел.: +38 (044) 201-43-50, факс: +38 (044) 201-43-73

Обмеження України на наявність небезпечних речовин

Устаткування відповідає вимогам технічного регламенту щодо обмеженого використання небезпечних речовин в електричному і електронному обладнанні.

Ukraine Restriction of Hazardous Substances

The equipment complies with requirements of the Technical Regulation, in terms of restrictions for the use of certain dangerous substances in electrical and electronic equipment.

EU Conformity Notice

 LG Electronics hereby declares that this product is in compliance with the following Directives.

EMC Directive 2004/108/EC

LOW VOLTAGE Directive 2006/95/EC

European representative:

LG Electronics Inc. Krijgsman 1, 1186 DM Amstelveen, The Netherlands

Information for recycling (take-back offer)

This product may contain parts which could be hazardous to the environment.

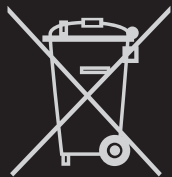
It is important that this product be recycled after use.

LGE handles all waste products through an environmentally acceptable recycling method. There are several take-back and recycling systems currently in operation worldwide.

Many parts will be reused and recycled, while harmful substances and heavy metals are treated by an environmentally friendly method. If you want to find out more information about our recycling program, please contact your local LG vendor or a corporate representative of LG. and Information of Regional Take back Schemes can be found at :

<http://www.lg.com/global/sustainability/environment/take-back-recycling.jsp>

Disposal of waste batteries (applicable in the European Union and other European countries with separate collection systems)



This symbol on the battery or on the packaging indicates that the battery provided with this product shall not be treated as household waste.

By ensuring these batteries are disposed of correctly, you will help prevent potentially negative consequences for the environment and

human health which could otherwise be caused by inappropriate waste handling of the battery. The recycling of the materials will help to conserve natural resources.

In case of products that for safety, performance or data integrity reasons require a permanent connection with an incorporated battery, this battery should be replaced by qualified service staff only.

To ensure that the battery will be treated properly, hand over the product at end-of-life to the applicable collection point for the recycling of electrical and electronic equipment.

For all other batteries, please view the section on how to remove the battery from the product safely. Hand the battery over to the applicable collection point for the recycling of

waste batteries.

For more detailed information about recycling of this product or battery, please contact your local authority, your household waste disposal service or the shop where you purchased the product.

Energy Saving

Energy efficiency cuts energy consumption and thus saves money by reducing electricity bills.

The following indications allow to reduce power consumption when the television is not being watched:

- turning the television off at its mains supply, or un-plugging it, will cut energy use to zero for all televisions, and is recommended when the television is not being used for a long time, e.g. when on holiday,
- putting the television into standby mode, will reduce energy consumption, but will still draw some power,
- reducing the brightness of the screen will reduce energy use.